

25X1A **DISPATCH**CLASSIFICATION
SECRET

PROCESSING ACTION

MARKED FOR INDEXING

NO INDEXING REQUIRED

ONLY QUALIFIED DESK
CAN JUDGE INDEXING

MICROFILM

TO

Chief, [REDACTED]

INFO.

FROM

Chief, [REDACTED]

SUBJECT

ENGINEERING/Air Conditioning Survey [REDACTED] Receiver Site

ACTION REQUIRED - REFERENCES

25X1A REFS: [REDACTED], DIR 89467

25X1C Attached under separate cover is the survey of "Environmental
25X1A Control Conditions" prepared by [REDACTED]
Division. This survey was requested by [REDACTED] as a result
of the several failures and extensive maintenance over the past two
years of the existing air conditioning systems at the Receiver Site.

25X1A The four different systems supplying air conditioning to
[REDACTED] Receiver Site have been installed over the past seven years
on a piece-meal basis in response to specific additions of the
building--and all of a different manufacturer. The oldest of the
four, a thirty-ton direct expansion system, is seven years old and
25X1A has had five major failures requiring on occasion up to ten days
for repair. [REDACTED] can recall the chunks of scaling
that had to be removed from the coil surfaces of this unit, as well
as the broken fan blades which occurred in the other units during
25X1A their recent visits to [REDACTED]. The twenty-eight ton unit, added
about five years ago when an extension was put on the building has
had its outages and maintenance problems also. The one and one-
half ten-ton units installed for MAX-1 have been a continual
source of maintenance trouble, as have two chilled water machines
for the disc files. The condensing units of the MAX-1 air system
were both out of commission at the time of the survey (and MAX-1
was served by rerouting the air from the thirty-ton unit listed
above) and are out of commission again at this writing (same re-
25X1A routing occurring). [REDACTED] is attempting to remake one condensing
unit out of the two malfunctioning ones since spare parts are not
available and a spare unit is months away from delivery. The
water chiller units for the disc files have failed on several
occasions and at this writing there is no spare unit on hand,
pending receipt in approximately three months of a recent order.

25X1A Anytime that one of the three major units breaks down,
equipment at [REDACTED] suffers heavy maintenance, i.e., KW-26 failures
double; anytime two of the three units breaks down, MAX-1 and
25X1A possibly KW-26's are out of use unless and until arrangements can
be made with [REDACTED] for a mobile unit. The age of two of the

CROSS REFERENCE TO

DISPATCH SYMBOL AND NUMBER

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CONTINUATION OF
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ATCH SYMBOL AND ETC.

25X1A

major units, and the past maintenance record, indicates that more troubles and maintenance can be expected in the future. The protection of the investment of equipment, and operational necessity, certainly warrants positive action on this subject.

The [REDACTED] survey proposes three possible solutions to the problem. Plans #2 and #3 do little if anything to improve the overall system; therefore they have been eliminated from our active consideration. Plan #1 is a good one and would reduce the required maintenance by a considerable degree in addition to improving reliability. It is, however, deficient in several critical areas:

a. No improvement is made to the present air distribution which is entirely inadequate in the high heat areas. Contrary to the parenthetical statement made in the survey on page 3, paragraph 6A, we believe that the deficiencies in the present air distribution are sufficient to justify eliminating them. The temperature remains too high in some spaces, and the present ducts are too small to force additional air through them even if they were moved to the high heat areas.

c. Retention of both MAX-1 disc file water chillers will still be required.

d. Maintenance problems of four different types of existing systems, all of a different manufacturer, will not be eliminated. To maintain these various systems have sorely taxed the knowledge of our station engineering personnel (untrained in air conditioning maintenance) as well as that of [REDACTED] with whom job work orders are sent when repairs are extensive.

Since the above deficiencies would still exist under Plan #1, a Plan #4 has been devised by [REDACTED] and has been added to the study. It includes the best features of Plan #1 plus it eliminates the deficiencies listed above. The initial cost might be slightly higher than Plan #1, in the form of direct purchase of twenty-five (25) or thirty (30) air distribution units appropriately hung or recessed in the spaces in the building, including the MAX-1 space. Some work would be required in the secure areas of the station but most of it could be accomplished by station personnel or under regulated surveillance. At some stage in its accomplishment, it is possible that a cleared team might be required for a short period of time; and it might be necessary to revert to torn tape operation vice MAX-1 for that period of time. The advantages in the long run, however, would be much greater in the form of efficiency of operation and less maintenance costs; and the above inconveniences would be well worth it.

It is recommended that Plan #4 be accepted in principle; and that [REDACTED] be authorized to contract with the [REDACTED] for A&E estimates of the exact cost of the installation. Early budget and funding for the A&E design as well as the total cost of the installation, is strongly urged.

Attachment: USC

Environmental Control Conditions

Distribution:

Orig & 2 - Addressee: [REDACTED]

RM
57 53aUSE PREVIOUS EDITION.
REPLACES FORMS
51 26, 51 28A AND 51 29
WHICH ARE OBSOLETE.

CLASSIFICATION

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